

# भारत का राजपत्र

## The Gazette of India

प्राधिकार से प्रकाशित  
PUBLISHED BY AUTHORITY

सं. 51] नई विली, शनिवार, दिसम्बर 19, 1992 (अग्रहायण 28, 1914)

No. 51] NEW DELHI, SATURDAY, DECEMBER 19, 1992 (AGRAHAYANA 28, 1914)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके।  
[Separate paging is given to this Part in order that it may be filed as a separate compilation]

### भाग III—खण्ड 2 [PART III—SECTION 2]

पेटेन्ट कार्यालय द्वारा जारी की गई पेटेन्टों और डिजाइनों से सम्बन्धित अधिसूचनाएँ और नोटिस।  
[Notifications and Notices Issued by the Patent Office relating to Patents and Designs]

#### THE PATENT OFFICE

#### PATENTS AND DESIGNS

Calcutta, the 19th December 1992

#### ADDRESS AND JURISDICTION OF OFFICES OF THE PATENT OFFICE

The Patent Office has its Head Office at Calcutta and Branch Offices at Bombay, Delhi and Madras having territorial jurisdiction on a zonal basis as shown below:—

Patent Office Branch,  
Todi Estates, III Floor,  
Lower Parel (West), Bombay-400 013.

The States of Gujarat, Maharashtra and Madhya Pradesh and the Union Territories of Goa, Daman and Diu and Dadra and Nagar Haveli.

Telegraphic address "PATOFFICE".

Patent Office Branch,  
Unit No. 401 to 405, III Floor,  
Municipal Market Building,  
Saraswati Marg, Karol Bagh,  
New Delhi-110 005.

The States of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttar Pradesh and the Union Territories of Chandigarh and Delhi.

Telegraphic address "PATENTOFIC".

Patent Office Branch,  
61, Wallajah Road,  
Madras-600 002.

The States of Andhra Pradesh, Karnataka, Kerala, Tamilnadu and the Union Territories of Pondicherry, Laccadive, Minicoy and Aminidivi Islands.

Telegraphic address "PATENTOFIS".

Patent Office (Head Office),  
"NIZAM PALACE", 2nd M.S.O. Building,  
5th, 6th and 7th Floor,  
234/4, Acharya Jagadish Bose Road,  
Calcutta-700 020.

Rest of India.

Telegraphic address "PATENTS".

All applications, notices, statements or other documents or any fees required by the Patents Act, 1970 or the Patents Rules, 1972 will be received only at the appropriate Offices of the Patent Office.

**Fees:**—The fees may either be paid in cash or may be sent by Money Order or Postal Order, payable to the Controller at the appropriate Offices or by bank draft or cheque, payable to the Controller drawn on a scheduled bank at the place where the appropriate office is situated.

पेटैंट कार्यालय

एकस्व तथा अभिकल्प

कलकत्ता, दिनांक 19 दिसम्बर 1992

पेटैंट कार्यालय के कार्यालयों के पते एवं क्षेत्राधिकार

पेटैंट कार्यालय का प्रधान कार्यालय कलकत्ता में अवधित है तथा भारती, दिल्ली एवं भद्रास में इसके शास्त्र कार्यालय हैं, जिनके प्रादौरीक अधिकार जोन के बाधार पर निम्न रूप में प्रदर्शित हैः—

पेटैंट कार्यालय शास्त्र, टोडी इस्टर्ट, तीसरा तल, बोअर परमेन, (पश्चिम). नम्बर-400013।

गुजरात, महाराष्ट्र तथा मध्य प्रदेश राज्य क्षेत्र एवं संघ शासित क्षेत्र गोआ, बमन तथा द्वीप एवं दावरा और नागर हवेली।

तार पता—“पेटैंटफस”

पेटैंट कार्यालय शास्त्र, एकल सं. 401 से 405, तीसरा तल, नागरिक बाजार भवन, एस्ट्रेटी मार्ग, करोल बाग, नई दिल्ली-110005।

हारियाणा, हिमाचल प्रदेश, जम्मू तथा कश्मीर, पंजाब, गजराजान तथा उत्तर प्रदेश राज्य क्षेत्रों एवं मंच शासित क्षेत्र और्जित तथा दिल्ली।

तार पता—“पेटैंटोफक”

CORRIGENDUM

In the Gazette of India, Part III, Sec. 2, dated the 2nd October, 1983 : (1) In Col 2, page 690 read the Int. Cl. as B 01 F 13/00 for Complete specification accepted No. 152124 instead of Int. Cl. B 01 13/00.

(2) In Col. 2 of page 691 read the Int. Class as C 22 C 33/00 instead of Int. Class C 22 33/00 for complete specification accepted No. 152129.

In the Gazette of India part III, sec. 2, dated the 17th December 1983. Col. 1 page 779, read the complete specification accepted No. as 152318 for application No. 425/Del/79 filed on 12th June, 1979 & Int. Cl. as B 08 B 3/00 instead of B 08 3/00;

delete line, of its title from company. of 28, R U E DE BONNEI, 69003 LYON FRANCE & read it as CHARACTERISTICS OF THE WALLS OF HEAT EXCHANGERS.

In the Gazette of India part III, sec. 2, dated the 24th December, 1983 in col. 2 of page 795 read the accepted No. as 152357 instead of 152337 for application for patent No. 1351/Cal/81 filed November 28, 1981.

In the Gazette of India part III, sec. 2, dated the 31st December, 1983, col. 2, of page 810 read the Int. Cl. as B 63 b 1/00 instead of Int. Cl. MB 63 b 1/00 for complete specification accepted No. 152388.

पेटैंट कार्यालय शास्त्र, 61, बालाजाह रोड, मद्रास-600002।

आन्ध्र प्रदेश, कर्नाटक, केरल, तमिलनाडु राज्य क्षेत्र एवं संघ शासित क्षेत्र पाण्डुचेरी, लक्ष्मीपुर्णिमा तथा अर्मीनिदिवि श्रीवीप।

तार पता—“पेटैंटफस”

पेटैंट कार्यालय (प्रधान कार्यालय)

निजाम पैलेस, दिल्ली बहुसंस्थी कार्यालय, शहर, ५, ६ तथा ७वा तल, २३४/४, आकार्य जगदीश बोम रोड, मद्रासा-700020।

भारत का अवशेष क्षेत्र

तार पता—“पेटैंटस”

पेटैंट अधिनियम, 1970 या पेटैंट नियम, 1972 में अपेक्षित गमी आवेदन पत्र, संचालन या अन्य प्रतीक्षा पेटैंट कार्यालय के केवल उपर्यंका कार्यालय में ही प्राप्त किए जाएंगे।

शुल्क :—शुल्कों की अदायगी या तो नकद की आएगी अथवा उपर्यक्ष कार्यालय में नियंत्रक को भूगतान योग्य धनादेश अथवा डाक आदेश या जहां उपर्यक्ष कार्यालय अवस्थित है; उस स्थान के अनुसन्धान बैंक से नियंत्रक को भूगतान योग्य बैंक ड्राफ्ट अथवा चैक द्वारा की जा सकती है।

(i) In the Gazette of India part III, sec. 2, dated the 1st January 1983, col. 2, page 8, read the Class as 195 B instead of 195 for accepted for complete specification No. 150866.

(ii) dated the 15th January, 1983, col. 1, page 33, read the Class 64 B1 instead of Class 64 B for accepted complete specification No. 150920.

(iii) dated 29th January, 1983 col. 2, of page 48 & 52.

(a) read the class as 39 A2 instead of 39 A for accepted complete specification No. 150949, and in the same page, for accepted com. specn.

(iv) 150964, read the class as 186 A & 206 C instead of class 186 & 206 C

(v) dated the 12th February 1983, col 2, of page 77, read the class as 77 D + 83B5 for accepted complete specification No. 151013.

dated the 19th February, 1983, col. 2, of page 95 read the class as 32 E & 136 C instead of Class 32 E & 36 C for accepted complete accepted specification No. 151071, and dated the same in col. 1, of page 104 read the class as 32 F2 (a) instead of 32 F (a) for accepted complete specification No. 151106.

dated the 26th February 1983, col. 1 of page 119 read the class as 70c5 instead of 70c & G for accepted complete specification No. 151147.

## THE PATENT OFFICE

Calcutta, 19th December 1992

APPLICATION FOR PATENTS FILED AT THE HEAD  
OFFICE 234/4, ACHARYA JAGADISH BOSE ROAD,  
CALCUTTA-20

The dates shown in the crescent branch are the dates claimed under section 135, of the patents Act, 1970

3rd November 1992

807/Cal/92 : Wolfgang Mayer, A contour rope saw for stones or similar workpieces.

4th November 1992

808/Cal/92, Hans Oetiker AG Maschinen-und Apparatefabrik Oberdorfstrasse. Method and arrangement for connecting two parts along abutting edges and connection obtained thereby.

5th November 1992

809/Cal/92, KM-Kabelmetal Aktiengesellschaft. Casting rollers/shells/moulds, capable of withstanding varying thermal stresses.

810/Cal/92, Sanki Kogyo Co., Ltd. Containers of live Marine animals.

811/Cal/92, Superba. Method and device for characterising a spun yarn.

9th November 1992

812/Cal/92, Spindelfabrik sus sen, schurr, stahlecker & Grill GmbH. A shaft coupling for bottom cylinders of drafting units on spinning machines.

813/Cal/92, Fritz stahlecker and Hans stahlecker. A Textile Machine comprising a plurality of drafting units arranged next to one another in a row.

814/Cal/92, Kortec Ag. Tuyere arrangement for the introduction of agents into a molten bath and method of operating such a tuyere.

815/Cal/92, Emitec Gesellschaft fur emissionstechnologie MBH. Method for brazing catalytic converter carrier bodies.

816/Cal/92, Texaco Development corporation. Dry, sulfur-free, CH<sub>4</sub>-Enriched synthesis or fuel gas.

817/Cal/92, Krone Aktiengesellschaft. Remote-controlled master switch facility.

818/Cal/92, E.I.Du Pont De Nemours and Company. Process for making high strength, Low shrinkage polyamide yarn made thereby.

819/Cal/92, Metallgesellschaft Aktiengesellschaft. Reactor for drying water-containing solids in a heated fluidized bed method of operating the Reactor.

820/Cal/92, Metallgesellschaft Aktiengesellschaft. Fluidized bed reactor for cooling or heating granular solids by an indirect heat exchange.

821/Cal/92, United states borax & Chemical Corporation. Zinc Borate.

822/Cal/92, IBP Company Limited. An Explosive device and a process of manufacture thereof.

823/Cal/92, Indian Institute of Technology. A process for the preparation of protease enzyme.

11th November 1992

824/Cal/92, Ratan Kumar Mukherjee. An improved tyre for ropeway pulley system and an improved pulley system comprising same.

825/Cal/92, Samsung electronics Co., Ltd. Method for processing Billing information in an exchange system.

826/Cal/92, Porta systems corporation. High frequency patch cord data connector.

827/Cal/92, Jainendra Kumar Singh. An energy conscious brake.

12th November 1992

828/Cal/92, Macrovision corporation. Method and apparatus for scrambling and descrambling of video signals with edge fill.

829/Cal/92, Recticel Holding Noord BV. And Brian James Blackwell. Method and device for the continuous Manufacture of slabstock polyurethane foam within a predetermined pressure range.

830/Cal/92, Copeland Corporation. Scroll compressor with discharge diffuser.

831/Cal/92, Siemens Aktiengesellschaft. Device for suppressing combustion vibrations in a gas turbine plant combustion chamber.

832/Cal/92, Biofield Corporation. Depolarized pre-gelled electrodes.

13th November 1992

833/Cal/92, Yokogawa Electric Corporation. Distributed control system.

834/Cal/92, Emerson Electric Co. Electric motor mounting assembly (Divided out of No. 248/Cal/89. Antedated to 31-03-1989)

16th November 1992

835/Cal/92, Hoechst Aktiengesellschaft. Process for the preparation of a modified fiber material and process for the dyeing of the modified fiber material with anionic textile dyes.

836/Cal/92, Ross Operating valve company. Energy saving and monitoring pneumatic control valve system.

837/Cal/92, Ormat Industries Ltd. Method of and Apparatus for controlling turbulence in a wall-bounded flow field.

838/Cal/92, Betz International Inc. Method & Composition for treatment of metals. (Convention No. SN2, 059,962 dated 23-1-92; Canada)

17th November 1992

839/Cal/92, Biman Saha. An improved fuel economiser.

840/Cal/92, Santanu Roy. A Novel Process for utilising industrial or Agro Wast in a Thermosetting compound and artical therefrom.

APPLICATIONS FOR PATENTS FILED AT THE PATENT  
OFFICE BRANCH, 61, WALLAJAH ROAD,  
MADRAS-600 002

The 6th October 1992

616/Mas/92, Dana Corporation. Piston ring assembly.

617/Mas/92, Dana Corporation. Variable guide height valve seal.

618/Mas/92, Merlin Gerin. Manufacturing process of an electromagnetic trip device with overmolded striker and trip device thus obtained.

619/Mas/92, Merlin Gerin. Range of molded case low voltage circuit breakers.

The 7th October 1992

620/Mas/92, Reiter Ingolstadt Spinnerelmeschinenbau Aktiengesellschaft. Method and apparatus for forming a reserve winding on a rotating empty tube.

621/MAS/92. Rieter Ingolstadt Spinnereimaschinbau Aktiengesellschaft. Method and apparatus for placing an open end spinning apparatus.

622/MAS/92. Rieter Ingolstadt Spinnereimeschinbau Aktiengesellschaft. Rotary plate for sliver-depositing devices.

623/MAS/92. Guala S.p.A.. A tamperproof closure for bottles and the like.

The 8th October 1992

624/MAS/92. Girivas Viswanath Shet. A method of manufacturing real foreign skotch whisky in India with the help of foreign liquor company chemists abroad.

625/MAS/92. Solvay Interrox Limited. Compositions and uses thereof. (October 17, 1991; Great Britain).

626/MAS/92. Advanced Extraction Technologies, Inc. and Kinetics Technology International Corporation. Absorption process for ethylene and hydrogen recovery.

The 7th October 1992

627/MAS/92. Sandoz Ltd. Sulphur dye compositions and their production.

The 12th October 1992

628/MAS/92. Shell Internationale Research Maatschappij B. V. Hydrocarbon conversion catalysts.

The 13th October 1992

629/MAS/92. Nagaoka International Corporation. A screen having a protective frame for a horizontal or high-angle well.

630/MAS/92. Shell International Research Maatschappij B. V. Star polymers, a process for their preparation and lubricating oil compositions and concentrates containing them.

631/MAS/92. Hoechst Aktiengesellschaft. Process for the preparation of vinyl chloride.

The 14th October 1992

632/MAS/92. Dr. Sundresen Ramachandran and Mr. Tiruponiture Venkataraman Suresh. An apparatus for slag chilling.

633/MAS/92. Union Oil Company of California. Plant control composition and methods of use.

634/MAS/92. Merlin Gerin. Multipole circuit breaker with single pole units.

The 15th October 1992

635/MAS/92. SMS Schleemann-Siemag Aktiengesellschaft. Hot rolling process and hot rolling mill for metal strip.

636/MAS/92. MK Electric Limited. An electrical socket. (October 23, 1991; Great Britain).

637/MAS/92. Applied Research & Technology Limited. Wave energy converter.

638/MAS/92 Smithkline Beecham p.l.c. Beverages.

The 16th October 1992

639/MAS/92. Tube Investments of India Ltd. A shock resistant railway wagon.

The 19th October 1992

640/MAS/92. The Chemithon Corporation. Method for conditioning flue gas.

641/MAS/92. Institut Francais Du Petrole. Paraffin alkylation catalyst.

The 20th October 1992

642/MAS/92. Zeppelin Schuttmuttertechnik GmbH. Cellular wheel sluice.

The 21st October 1992

643/MAS/92. Tannirkulam Mudambi Vatsala and Chetpet Venkatasubban Seshadri. Microbial process for pulping of silk-cotton fibres.

The 22nd October 1992

644/MAS/92. Transcom Gas Technologies Pty. Ltd. (October 23, 1991; Australia).

645/MAS/92. Transcom Gas Technologies Pty. Ltd. (October 23, 1991; Australia).

The 23rd October 1992

646/MAS/92. D. P. Balachandran. Moulding of fibre glass re-inforced plastic marine craft and other fibre glass re-inforced products from Masonry mould.

647/MAS/92. L & T-McNeil Limited. Radially expanding collapsing drum for tyre building.

The 26th October 1992

648/MAS/92. Urea Casale S.A. Process and equipment for the hydrolysis of residual urea in the water from synthesis plants.

649/MAS/92. Hoechst Aktiengesellschaft. Bradykinin-antagonists for the treatment of acute pancreatitis.

The 27th October 1992

650/MAS/92. Girivas Viswanath Shet. A process for preparing a novel imported sandella wood oil perfume in oil base form.

651/MAS/92. F. L. Smidt & Co. A/S. Method for controlling the material feed to a roller press for grinding particulate material.

652/MAS/92. Inventio AG. Fireproof shaft door for lift installations.

The 28th October 1992

653/MAS/92. The Pall Corporation. A device and a method for the depletion of the leukocyte content of a blood product. (Divided out of Patent Application No. 955/MAS/91).

654/MAS/92. The Graver Company. Cation exchange resins having an enhanced capacity for iron oxide.

The 30th October 1992

655/MAS/92. International Business Machines Corporation. Bus control logic for computer system having dual bus architecture.

656/MAS/92. International Business Machines Corporation. Arbitration control logic for computer system having dual bus architecture.

657/MAS/92. International Business Machines Corporation. Bus interface logic for computer system having dual bus architecture.

658/MAS/92. International Business Machines Corporation. Bidirectional data storage facility for bus interface unit.

The 2nd November 1992

659/MAS/92. Markel Corporation. Fuel System conduit.

660/MAS/92. Markel Corporation.

661/MAS/92. Merlin Gerin. Screw terminal for a molded insulating case electrical switchgear device.

The 3rd November 1992

662/MAS/92. Moore Products Co. Multi-mode input/output circuit and module, and process control system using same.

663/MAS/92. IMC Fertilizer, Inc. Automatic control system for a phosphatic attach tank and filter.

664/MAS/92. Cabot Corporation. Carbon blacks and their use in rubber applications.

665/MAS/92. Schreiber Foods, Inc. Method and apparatus for forming a slice of a food item having a heat tack seal.

The 4th November 1992

666/MAS/92. Nippon Sinyaku Co. Ltd. Process for producing Saccharidas.

667/MAS/92. Denki Tetsushin Industrial Co. Ltd. A wound core.

668/MAS/92. Tube Investments of India Ltd. A housed high strength core member.

The 5th November 1992

669/MAS/92. Inventio AG. Equipment for the ventilation of the passenger space of rapidly moving lift cages.

670/MAS/92. University of Connecticut. Method for increasing crustacean larval production.

The 6th November 1992

671/MAS/92. Sukumar Kaniparampil Vijayan. Fully automatic envelop making machine.

672/MAS/92. Hydromatic Ltd. Method and apparatus for making drip irrigation devices.

673/MAS/92. Comalco Aluminium Limited. Continuous prebaked anode cell (November 7, 1991; Australia).

#### ALTERATION OF DATE.

Patent No. 171708 Antedated to 19th October, 1987.  
(509/Cal/90).

Patent No. 171709 Antedated to 19th October, 1987.  
(7/Cal/91)

Patent No. 171710 Antedated to 3rd July, 1989.  
(203/Cal/92)

#### COMPLETE SPECIFICATION ACCEPTED

Notice is hereby given that any person interested in opposing the grant of patents on any of the Applications concerned, may, at any time within four months of the date of this issue or within such further period not exceeding one month applied for on Form 14 prescribed under the Patents Rules, 1972 before the expiry of the said period of four months, give notice to the Controller of Patents on the prescribed Form 15 of such opposition. The written statement of opposition should be filed alongwith the said notice or within one month of its date as prescribed in Rule 36 of the Patents Rules, 1972.

The classifications given below in respect of each specification are according to Indian Classification and International Classification.

A limited number of printed copies of the specifications listed below will be available for sale from the Government of India Book Depot, 8, Kiran Sankar Roy Road, Calcutta, in due course. The price of each specification is Rs. 2/- (postage extra). Requisition for the supply of the printed specifications should be accompanied by the number of the specifications as shown in the following list.

Typed or photo copies of the specifications together with photo copies of the drawings, if any, can be supplied by the Patent Office, Calcutta on payment of the prescribed copying charges which may be ascertained on application to that office. Photo copying charges may be calculated by adding the number of pages in the specification and drawing sheets mentioned below against each accepted specification and multiplying the same by four to get the charges as the copying charges per page are Rs. 4/-.

#### स्वीकृत सम्पूर्ण विनिर्देश

एतद्वारा यह सूचना दी जाती है कि सम्बद्ध आवेदनों में से चिह्नी पर पेटेंट अनुदान का विरोध करने के इच्छुक कोइर्ह व्यक्ति, इसके निर्गम की तिथि से 4 महीने या बाइप्र एसी अवधि औ उक्त 4 महीने की अवधि की समाप्ति के पश्च पेटेंट नियम, 1972 के तहत विहित प्रपत्र 14 पर आवेदित एक महीने की अवधि से अधिक न हो, के भोलेर कभी भी नियंत्रक, एकस्व को एसें प्रिटार्स की सूचना दिल्ली प्रपत्र 15 पर दे सकते हैं। विरोध नियमों द्वारा दिल्ली विधित वयस्तथा, उक्त सूचना के साथ अधदा पेटेंट नियम, 1972 के नियम 36 में द्यथा विहित इसकी तिथि के एक महीने के भीतर ही फाइल किए जाने चाहिए।

“प्रत्येक विनिर्देश के संबंध में नीचे दिए वर्गीकरण, भारतीय वर्गीकरण तथा अंतर-राष्ट्रीय वर्गीकरण के अनुहृष्ट हैं।”

नीचे सूचीगत विनिर्देशों की सीमित संख्यक मुद्रित प्रतियां, भारत सरकार बूक डिपो, 8, किरण शंकर राय रोड, कलकत्ता में विक्रय हेतु द्यथा समय उपलब्ध होती है। प्रत्येक विनिर्देश का मूल्य 2/- रु. है। (असिरिकत छाक खर्च)। मुद्रित विनिर्देश की आपूर्ति हेतु मांग-पत्र के साथ निम्नलिखित सूची में द्यथा प्रदर्शित विनिर्देशों की संख्या संलग्न रखनी चाहिए।

स्वाक्षर (चित्र आरेखों) की फोटो प्रतियां दाद कोइर्ह हों, के साथ विनिर्देशों की टंकित अधवा फोटों प्रतियों की आपूर्ति पेटेंट व्यापारिय, कलकत्ता स्वारा विहित लियाताराग ग्रभार जिसे उक्त कार्यालय से पत्र-व्यवहार स्वारा सुनिश्चित करने के उपरांत उसकी अवायगी पर की जा सकती है। विनिर्देश की पृष्ठ संख्या के साथ प्रत्येक स्वीकृत विनिर्देश के सामने नीचे वर्णित चित्र आरेख आगजों को जोड़कर उसे 4 से गुणा करके; (क्योंकि प्रत्येक पृष्ठ का लिप्यान्तरण ग्रभार 4/- रु. है) फोटो लिप्यान्तरण ग्रभार का परिकलन किया जा सकता है।

Cl. : 195 D.

171701

Int. Cl. : G 05 B 11/92.

**"ADVANCED PROPORTIONAL PLUS INTEGRAL PLUS DERIVATIVE CONTROLLER".**

Applicant : INTERNATIONAL CONTROL AUTOMATION FINANCE S. A. OF VILLE DE LUXEMBOURG, 16 RUE DES BAINS, LUXEMBOURG.

Inventors : (1) JOHN DAVID LANE, (2) THEODORE N. MATSKO, (3) JOSEPH GABRIEL PATELLA, (4) THOMAS JOSEPH SCHEIB.

Application No. 786/Cal/88; filed on 19th September, 1988.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

**9 Claims**

Apparatus for producing an interacting proportional, derivative and integral process control signal from a process

variable signal or a proportional, derivative and external reset signal from a process variable signal comprising :

means for converting the process variable signal into a first signal which is proportional to said process variable signal;

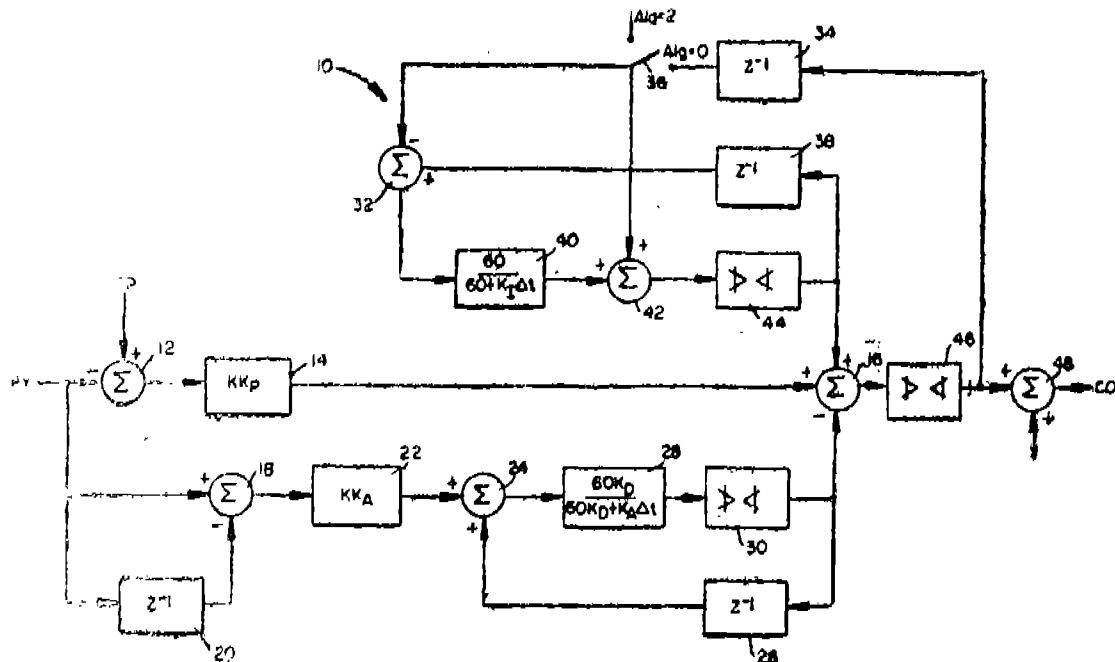
means for converting the process variable signal into a second signal which is a function of the derivative of said process variable signal;

means for converting the process variable signal into a third signal which is a function of the integral of said process variable signal;

means for combining said first, second and third signals to produce said process control signal.

switch means for removing said third signal from said combining means and replacing third signal with an external reset signal; and

wherein variation of any one of said first, second and third signals causes a variation in the remainder of said first, second and third signals as per an interacting algorithm.



Compl. specn. 11 pages.

Drg. 1 sheet.

Cl. : 194 C 6 - c

171702

Int. Cl. : H 05 B 41/45.

**"DEVICE FOR ILLUMINATING A FLUORESCENT LAMP, WHETHER IN FRESH OR EXHAUSTED CONDITION".**

Applicant & Inventor : MRINAL KANTI ROUTH OF c/o MONOMOHAN ROUTH 127, NATUN GRAM ROAD, P.O. SHYAMNAGAR, DIST. NORTH 24 PARGANAS, WEST BENGAL, INDIA, PIN CODE-793127.

Application No. 332/Cal/1989; filed on May 03, 1989.

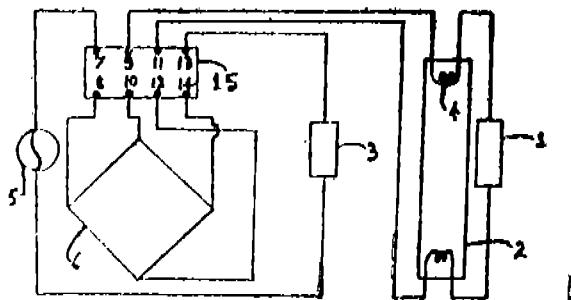
Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

**2 Claims**

A device for illuminating a fluorescent lamp, whether in fresh or exhausted condition, comprising, in combination,

a bridge rectifier circuit, and a change-over switch circuit, the input of the said bridge rectifier circuit being adapted to be connected to an A.C. mains, through the said change-over switch circuit, and the output of the bridge rectifier circuit being adapted to be connected to fluorescent lamp circuit, constituted by a fluorescent lamp, a chock/ballast and a starter, the said bridge rectifier circuit being constituted by four diodes in the form of a bridge with the diodes being so arranged and connected to each other that during both the positive and negative half cycles of the A.C. mains power supply through the rectifier circuit, as and when desired, the load current flows in the same direction, resulting in full wave D.C. signal in the form of pulse, as sustaining D.C. voltage for the fluorescent lamp in its exhausted condition, the arrangement being such that in the fresh condition of the fluorescent lamp, power supply from the A.C. mains is adapted to be directly made to the fluorescent lamp circuit with the help of the change-over switch, while in the exhausted condition of the fluorescent lamp, A.C. mains is adapted to be connected to the fluorescent lamp circuit through the said bridge rectifier circuit, with the help of the change-over switch.

12 Claims



Compl. specn. 5 pages.

Drg. 1 sheet.

Cl. : 34 B.

171703

Int. Cl. : D 01 F 11/00; D 06 M 1/22.

**"A PROCESS FOR PRODUCTION OF ALUMINA FIBRE USING SISAL AND JUTE FIBRES".**

Applicants & Inventors : MAHENDRA PATEL & BALAKRISHNA PADHI, OF PULP & PAPER RESEARCH INSTITUTE, JAYKAYPUR 765017, KORAPUT, ORISSA, INDIA.

Application No. 338/Cal/89; filed on May 04, 1989.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

1 Claim

A process for production of alumina fibre having application as composites with Al-alloy, polymer and ceramic materials by using jute and sisal natural fibres, pretreated with NaOH and then digested with  $\text{AlCl}_3$  followed by drying, coking at 350 C and pyrolysis at 1500 C after loading inside refractory reactors of alumina or aluminosilicates in electric muffle furnaces by addition of Ni or Cu catalysts inside the reactors.

Compl. specn. 7 pages.

Drg. N1

Cl. : 33 D

171704

Int. Cl. : B 22 D 41/08, 41/10.

ING".

**"IMPROVEMENTS RELATING TO METAL TEEMING".**

Applicant : FLOGATES LIMITED, OF SANDIRON HOUSE, BEAUCHIEF, SHEFFIELD S 7 2RA, ENGLAND.

Inventors : (1) PAUL LESLIE HILL, (2) WILLIAM ALBERT GRIFFITHS, (3) GILBERT CLIVE HINCKLEY, (4) JOSEPH WILLIAM CUDBY.

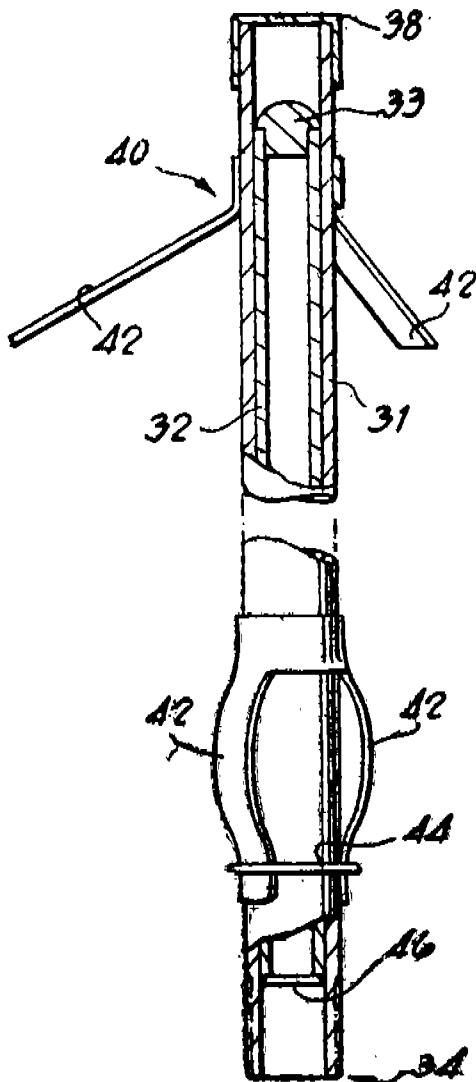
Application No. 384/Cal/1989; filed on 17th May, 1989.

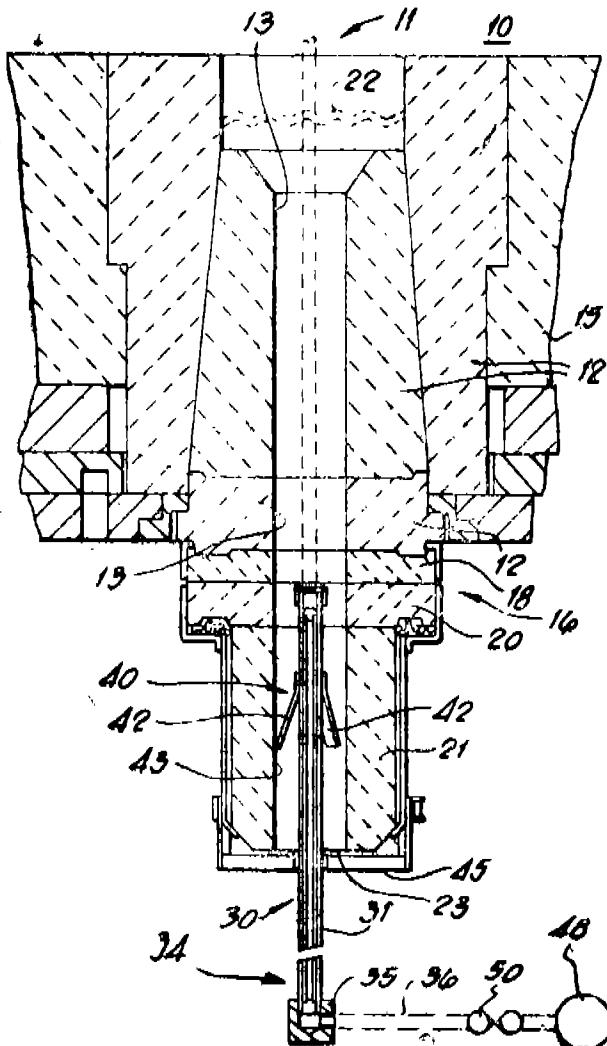
Conventional numbers are : 8811937 dated 20-5-88, 8817490 dated 22-7-88 and 7721236 dated 9-9-88.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

Apparatus adapted for use in removing or disrupting a blockage from the pour opening of a molten metal containment vessel, which vessel has an elongated conduit extending from the pour opening outwardly of the vessel for passage of molten metal from the vessel via the pour opening and the conduit to an outlet of the conduit : the apparatus comprising :

- (a) a gas conduit connectible to a supply of pressurised gas and providing a barrel secured in the molten metal conduit and aimed at the pour opening; and
- (b) a projectile loaded in the barrel and, on admission of pressurised gas to the gas conduit, propellable towards the pour opening to impact on any blockage therein; leading end portion of the projectile comprising a metal housing containing a reactive material which burns on impact with a blockage to facilitate removal of disruption of the blockage, the reactive material consisting essentially of iron or steel wool and being free of magnesium.





Compl. specn. 23 pages.

Drgs. 4 sheets

Cl. : 206

171705

Int. Cl. : H 04 B 15/00; H 001 Q 1/24, 23/00.

"FLAT PLATE ANTENNA INCLUDING LOW NOISE BLOCK DOWN-CONVERTER INTEGRATED THEREIN".

Applicant : COMMUNICATIONS SATELLITE CORPORATION, OF 950, L'ENFANT PLAZA, S. W., WASHINGTON, D. C. 20024, UNITED STATES OF AMERICA.

Inventors : (1) BERNNARD D GELLER, (2) AMIR IBRAHIM ZAGHLOUL.

Application No. 441/Cal/1989; filed on June 07th 1989.

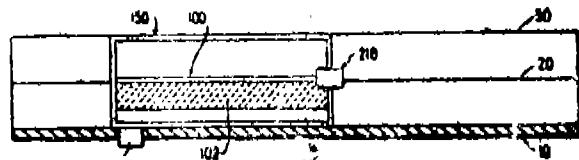
Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

#### 8 Claims

A flat plate direct broadcast satellite (DBS) antenna/receiver combination, comprising :

- a ground plane;
- a power dividing network layer disposed over said ground plane and capacitively coupled thereto;
- a radiating element array disposed over said power divider network layer, and capacitively coupled thereto, one of said radiating elements within said radiating element array being fed at least a single point by corresponding elements of said power divider network; and

a low noise block down-converter, disposed on a substrate and provided on said power divider network layer.



Compl. specn. 13 pages.

Drgs. 2 sheets

Cl. : 172 F D 4; 34 A.

171706

Int. Cl. : D 01 D 1/00; 4/00; 5/00.

"APPARATUS FOR SPINNING HAVING A SPINNING PACK".

Applicant : DU PONT CANADA INC., OF BOX 2200, STREETSVILLE, MISSISSAUGA, ONTARIO, CANADA, LSM 2H3, CANADA.

Inventor : RONALD JOSEPH JUDGE.

Application No. 861/Cal/1989; filed on October 18, 1989.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

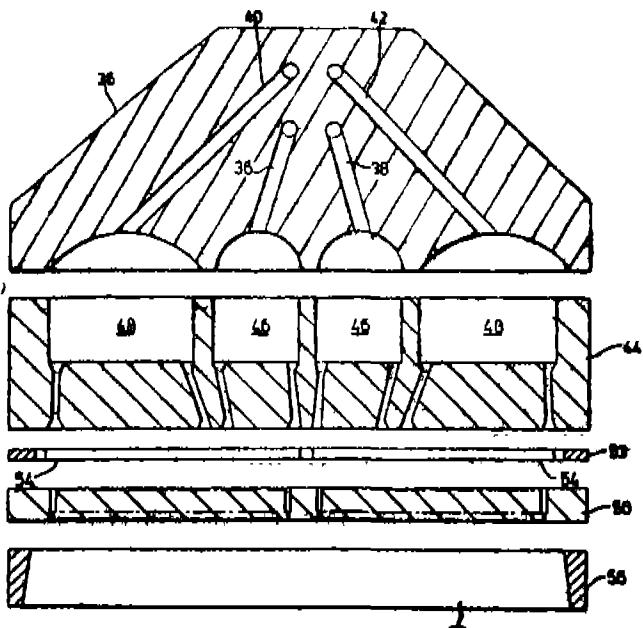
#### 6 Claims

Apparatus for spinning, said apparatus comprising :

a spinning pack comprising a polymer inlet zone and a spinneret assembly;

a first metering pump for pumping a first set of molten polymer streams of equal flow rate to said polymer inlet zone; and

a second metering pump for pumping a second set of two molten polymer streams of equal flow rate to said polymer inlet zone, said second pump having twice the capacity of said first pump; wherein said spinneret assembly comprises a pair of spinnerets interchangeably locatable in said spinning pack, one of said spinnerets being adapted to combine said first set of streams to produce three ends of filaments and the other of said spinnerets being adapted to combine each of said first streams with a respective one of said second streams to provide two ends of filaments.



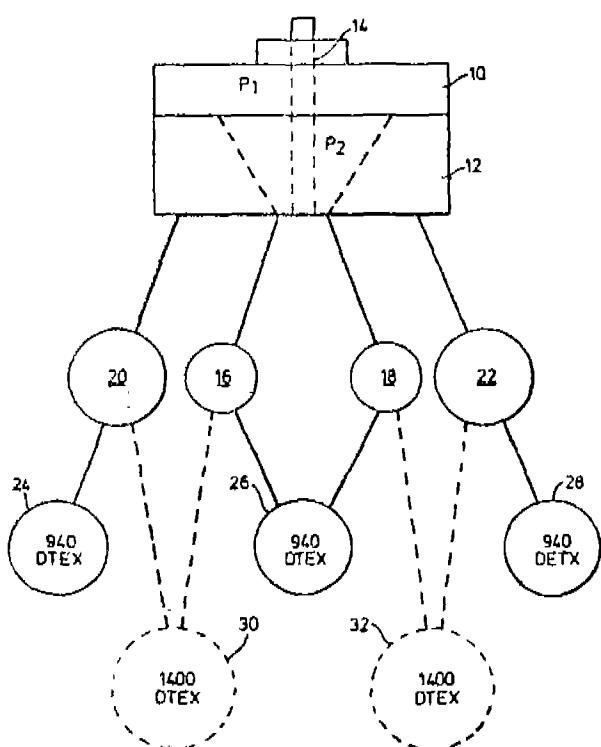


Fig. 1

Compl. specn. 8 pages.

Drgs. 4 sheets

Cl. : 32 F 2 (a), 32 F 1.

171707

Int. Cl. : C 07 B 43, 00;

C 07 C 41/00, 45/00, 102/02, 103/178.

"A PROCESS FOR THE MANUFACTURE OF P-HYDROXYPHENYLACETAMIDE FROM P-HYDROXYACETOPHENONE".

Applicant : ICI INDIA LIMITED, OP I C I HOUSE, 34, CHOWRINGHEE ROAD, CALCUTTA 700001, WEST BENGAL, INDIA.

Inventors : (1) DR. ASHOK KUMAR, (2) RAMAKRISHNA APPAJI RANE, (3) VAIKYAPARAMBIL KRISHNAN RAVINDRAN.

Application No. 135/Cal/1990; filed on February 13, 1990.

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

#### 5 Claims

A process for the manufacture of p-hydroxyphenyl-acetamide of the formula I shown in the drawings accompanying the provisional specification consisting of the following steps :

- acetylation of p-hydroxyacetophenone of the formula IV shown in the drawings accompanying the provisional specification with an acetylating agent such as acetic anhydride or acetyl chloride in the presence of a strong base such as sodium hydroxide or potassium hydroxide or carbonate and a solvent such as dioxane or dioxane ether at 0° to 80°C;



Formula I

(ii) brominating the resulting p-acetoxy acetophenone of the formula V shown in the drawings accompanying the provisional specification with liquid bromine in the presence of an acid catalyst such as montmorillonite K-10 (a clay forming the principal constituent of bentonite and fullers earth), Zeolite such as ZSM-5, SiO<sub>2</sub>, FeCl<sub>3</sub>, HBr or AlCl<sub>3</sub> in a solvent such as ether, dioxane, dioxane-ether or diisopropyl ether at 0 to 50°C;

(iii) in situ deacetylating the resulting α-bromo-p-acetoxyacetophenone of the formula VI shown in the drawings accompanying the provisional specification with a C<sub>1</sub> - C<sub>4</sub> alcohol at room temperature;

(iv) ketallising the resulting α-bromo-p-hydroxyacetophenone of the formula VII shown in the drawings accompanying the provisional specification with a ketallising agent such as diol such as ethylene glycol or 2, 2-dimethyl-1, 3-propanediol in the presence of an acid catalyst such as p-toluenesulphonic acid, methane sulphonic acid or trifluoromethane sulphonic acid and a solvent such as toluene or benzene at 90 to 150°C with continuous azeotropic removal of water;

(v) subjecting the resulting ketal of the formula VIII shown in the drawings accompanying the provisional specification wherein R<sub>1</sub> and R<sub>2</sub> stand for -CH<sub>2</sub>- or -CH<sub>2</sub> C(CH<sub>3</sub>)<sub>2</sub>CH<sub>3</sub>- to 1, 2 aryl transposition reaction with a polar solvent such as alcohol or diol such as butanol, ethylene glycol, 1, 3-propane diol, ethylene glycol or dimethylformamide in the presence of a weak base such as sodium or potassium acetate or calcium carbonate at 30—160°C; and

(vi) amidating the resulting ester of the formula II shown in the drawings accompanying the provisional specification, wherein R stands for CH<sub>2</sub> CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OOCCH<sub>3</sub>, -C<sub>6</sub>H<sub>5</sub> (P=OH), CH<sub>2</sub> C(CH<sub>3</sub>)<sub>2</sub> CH<sub>2</sub> OH or C<sub>1</sub>—C<sub>4</sub> alkyl with aqueous ammonia at room temperature to obtain compound of the formula I.

Compl. specn. 17 pages.

Drg. 1 sheet

Cl. : 34 A D; 172 F.

171708

Int. Cl. : D 01 D 5/00; 6/44.

"POLYESTER FIBERBALLS AND PROCESS FOR MAKING SAME".

Applicant : E. I. DU PONT DE NEMOURS AND COMPANY, OF WILMINGTON, DELAWARE, UNITED STATES OF AMERICA.

Inventor : (1) ILAN MARCUS.

Application No. 509/Cal/90, filed on June 19, 1987.

(Divided out of No. 813/Cal/87; antedated to 19-10-87).

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

#### 7 Claims

Polyester fiberballs of average dimension of between 2 to 15 mm, consisting essentially of randomly-arranged, entangled, spirally-crimped bicomponent polyester and binder arranged, entangled, spirally-crimped bicomponent polyester material fibers, having a cut length of 10 to 100 mm.

Compl. specn. 38 pages.

Drgs. 3 sheets

Cl. : 155 A C, 34 A D.

171709

Int. Cl. : D 01 F 8/00.

**"A THROUGH-BONDED BATT OF POLYESTER FIBER-FILL AND METHOD OF MAKING SAME".**

Applicant : E. I. DU PONT NEMOURS AND COMPANY OF WILMINGTON, DELAWARE, UNITED STATES OF AMERICA.

Inventor : ILAN MARCUS.

Application No. 7/Cal/91; filed on 1st January, 1991.

(Divided out of No. 812/Cal/87; antedated to 19-10-87).

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

**8 Claims**

A through-bonded batt of polyester fiberfill, of improved durability, and moisture transport, soft bonding and low flammability having been formed by heat bonding a batt of polyester fiberfill blend comprising 60 to 95% by wt polyester staple fibers pre-coated with a slickener consisting essentially of chains of poly (alkylene oxide) and 5 to 40% by wt. binder fibers such as herein described.

Compl. specn. 30 pages.

Drg. Nil

Cl. : 25 A &amp; B; 35-E.

171710

Int. Cl. : C 04 B 35/00; E 04 c 1/04.

**"PRODUCTION OF BASIC REFRactories BRICKS FROM USED REFRactories".**

Applicant : KABITA REFRactories (PVT.) LTD., OF P. O. PANURIA (GOURANGDI), DIST. BURDWAN, WEST BENGAL, INDIA.

Inventor : SHAMA PADA ROY.

Application No. 203/Cal/92; filed on March 26, 1992.

(Divided out of No. 520/Cal/89; antedated 3-7-1989).

Appropriate office for opposition proceedings (Rule 4, Patent Rule 1972) Patent Office, Calcutta.

**7 Claims**

A process for producing basic refractory bricks selected from the group consisting of magnesite, chrome-magnesite and magnesite-chrome bricks, with or without steel cladding, from corresponding used basic refractory bricks, comprising the steps of :

- sorting out used basic refractory bricks according to its constituents;
- removing the undesirable portions, i.e. slags, fused portions, from the sorted out used bricks;
- crushing/grinding the bricks having desirable portions, so obtained from the step (b).
- grading the crushed/ground granules of the step (c) according to different sizes;
- mixing different sized granules obtained from the step (d), along with correspondingly sized granules of unused basic refractory bricks, according to end product requirement, and adding thereto a binder/additive prepared by mixing molasses, any one or more of sulphuric acid, chromic acid, magnesium sulphate and sulphite lye, and water, to obtain a mix;
- placing the mix of the step (e) in mould of desired shape and size, with steel cladding being provided in the mould prior to placing of the mix in case of steel-clad bricks, pressing the same, and taking out the pressed green bricks, so formed, from

the mould, followed by curing/setting of the green bricks at ambient temperature; and

(g) heat-treating the green bricks in dryer at a temperature range of 110° C to 500° C, depending on the product, as required.

Compl. specn. 8 pages.

Drg. Nil

Ind. Classes : 116-F &amp; 133-A [GROUPS - XLIX &amp; LIX(3)] 171711

Int. Cl. : B 66 B 1/44.

**ELEVATOR DRIVE WITH CONTROL DEVICE FOR JERK FREE STARTING-UP.**

Applicant : INVENTIO AG, A SWISS COMPANY, OF SEESTRASSE 55, 6052 HERGISWIL, SWITZERLAND.

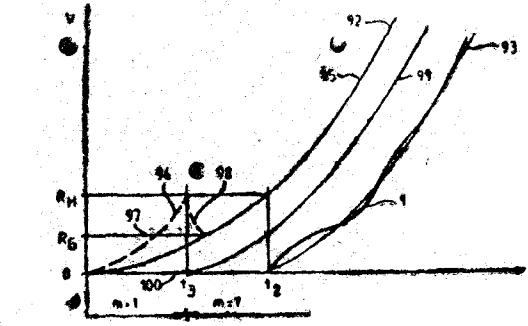
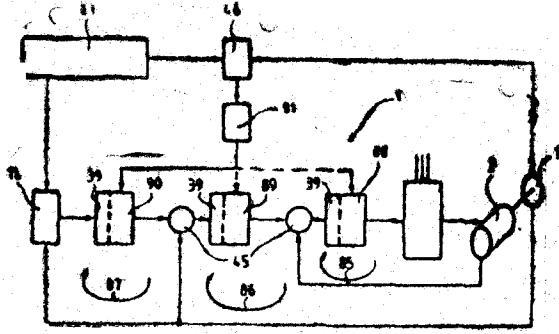
Inventor : KLAUS-JURGEN KLJNGBEIL.

Application No. 342/MAS/88 filed May 23, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**11 Claims**

Elevator drive with control device for jerk free starting-up comprising a hoisting motor (2) with a drive pulley (6) for carrying out linear movements, a drive control (1) with a control amplifier (11, 45), nominal value transmitters (14) and actual value transmitters (16, 18, 19, 22) for measuring the number of revolutions and the distance pertaining comparators (11, 42) and control devices (16, 46, 39) for jerk free starting-up by controlling for suppression of the starting-up jerk and then for predetermined distance/number of revolutions characterized in that a nominal value multiplier (39) with controllable multiplying factor (m) is provided and connected behind a nominal value transmitter (14) for the temporary multiplication of a nominal value, the said nominal value multiplier (39) is connected to a motion detector (16) by an on off switching circuit (46) with a superimposed flow control (21) for controlling the said multiplication factor (m) keeping the multiplying factor (m) to a value of greater than 1 before the beginning of movement and to a value of 1 at the beginning of movement in the direction of travel for making the resultant of motor driving force and imbalance force equal to the sliding friction force (R<sub>G</sub>) at the beginning of movement.



Ind. Class : 155 A [XXIII].

171712

Int. Cl. : B 01 D 13/04.

**"A CONTINUOUS PROCESS FOR PRODUCING COATED, COMPOSITE HOLLOW FIBER MEMBRANE WITH PERMEABLE COATING ON A HOLLOW SUBSTRATE".**

Applicant : AIR PRODUCTS AND CHEMICALS, INC., OF P. O. BOX 538, ALLENTOWN, PA 18105, USA, INCORPORATED IN THE STATE OF DELAWARE, UNITED STATES OF AMERICA.

Inventor : PUSHPIINDER SINGH PURI.

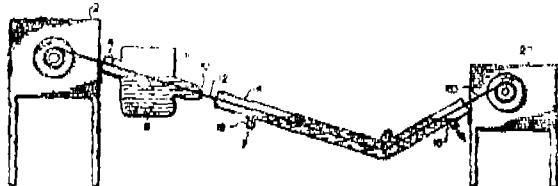
Application No. 383/MAS/88 filed on 6th June 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, Madras-2.

**13 Claims**

A continuous process for producing coated, composite hollow fiber membrane with permeable coating on a hollow substrate comprising the steps of :

- passing a hollow fiber substrate, at both fixed tension and speed into a polymeric solution capable of forming a permeable coating on the hollow fiber substrate;
- removing said hollow fiber substrate from the polymeric solution by axially drawing said substrate through a coating die such that a polymer solution coating is formed on the substrate surface by axial annular drag flow;
- evaporating a portion of the polymer solution coating such that the surface of said solution coating forms a thin, dense layer;
- subsequently immersing said coated hollow fiber substrate in a leaching bath; and
- drying the coated hollow fiber substrate.



(Compl. specn. 14 pages)

Drg. 1 sheet)

Ind. Class : 116-F - [GROUP - XLIX]

171713

Int. Cl. : B 66 B 1/18.

**AN IMPROVED LIFT INSTALLATION.**

Applicant : INVENTIO AG, OF SEESTRASSE 55, 6052 HERGISWIL NW, SWITZERLAND. SWISS COMPANY.

Inventor : DR. JORIS SCHRODER.

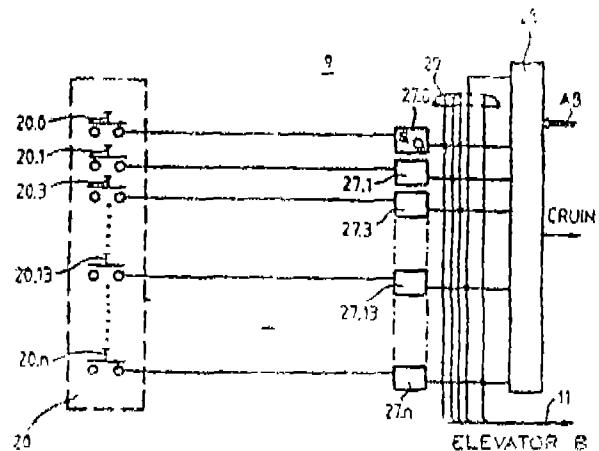
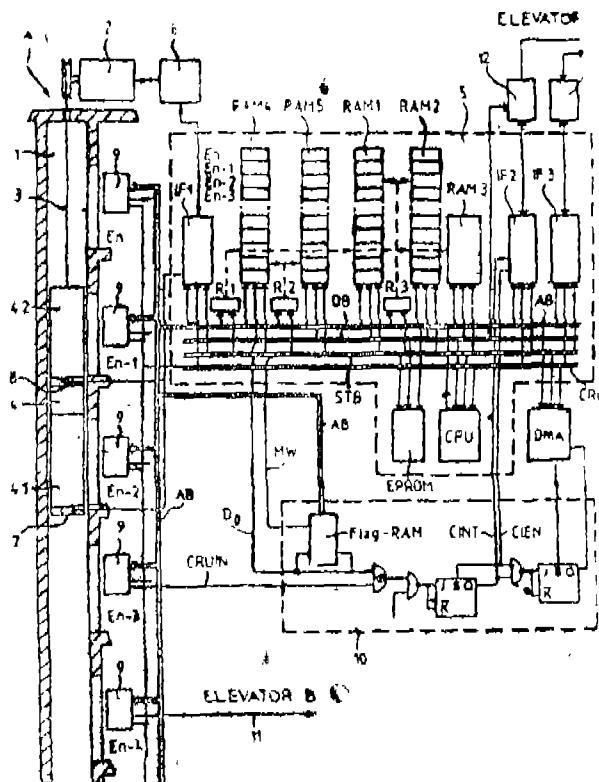
Application No. 419/MAS/88 filed June 20, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

**13 Claims**

In a lift installation with at least one lift (a, b) having a cage (4) provided with at least one compartment (4.1; 4.2), wherein at least one main stopping place (HH) and a number of adjacent main floors (EO; EI) are provided and command input devices are present for the calling of cages to the floors and for the input of travel destination wishes and the lift (a; b) carries out only travel wishes to one certain group of destination floors, the improvement comprising the said command input devices are call registering equipments (9) arranged externally of the cage (4) on the floors (EO;

EI.., Fn) and having circuit means for preventing the execution of travel wishes at least in direction of travel away from the main stopping place (HH) to destination floors lying outside the certain group of destination floors.



(Compl. specn. 22 pages)

Drgs. 7 sheets)

Ind. Class : 136-E & F - [GROUP - XIII]

171714

Int. Cl. : B 29 C 45/00.

**A METHOD OF MOULDING COMPLEX COMPOSITE ARTICLES.**

Applicant : 3 D COMPOSITES LIMITED, A BRITISH COMPANY, OF HENNYMORE HOUSE, 7-11 MANOR ROW, BRADFORD, WEST YORKSHIRE. BD1 4TB. UNITED KINGDOM.

Inventor : JOHN REGINALD NEWTON.

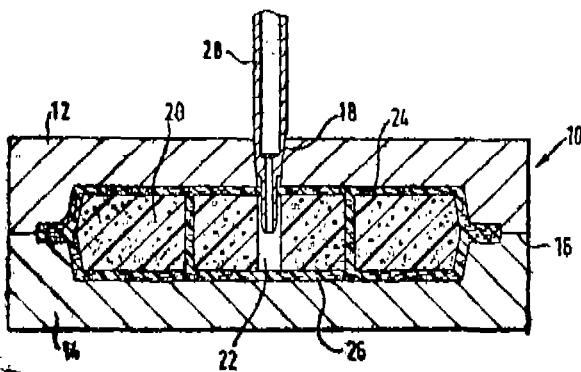
Application No. 482/MAS/88 filed July 8, 1988.

Convention date : July 10, 1987; (No. 8716315; United Kingdom).

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

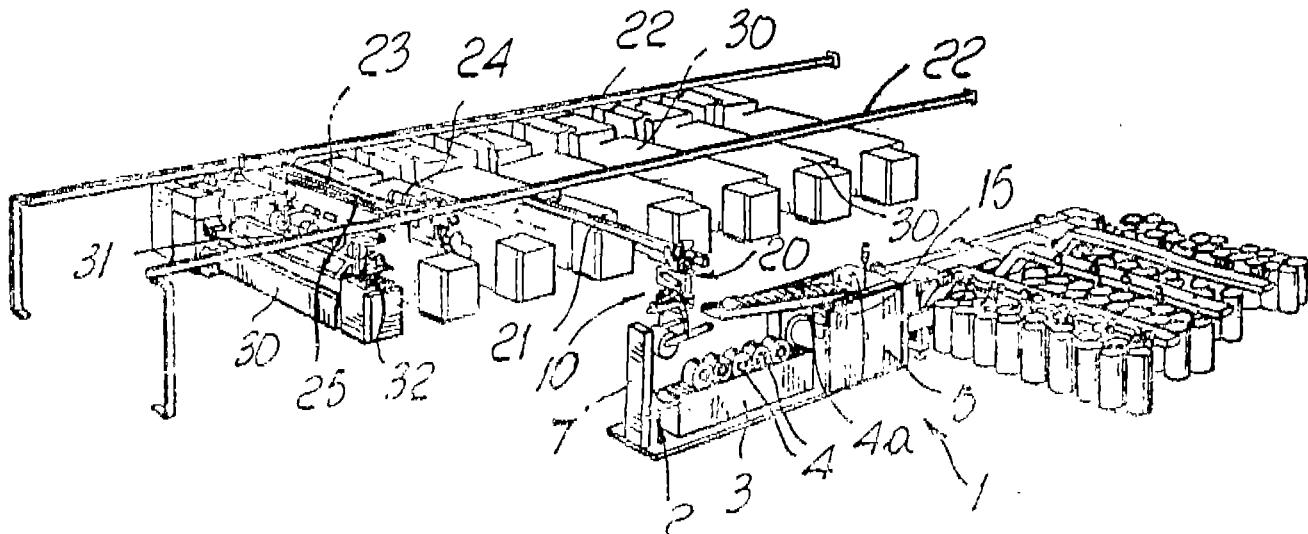
## 10 Claims

A method of moulding complex composite articles, for use as structural members, having a layer containing fibres to be injected with a resin and a core portion, said method comprising providing one or more galleries in the core or fibre layer and injecting resin directly into the gallery or galleries by inserting a nozzle through a port into the gallery whereby it is rapidly transmitted to all portions of the layer, and thereafter withdrawing the nozzle and plugging the port before the resin cures or is allowed to cure.



(Compl. specn. 17 pages;

Drgs. 3 sheets).



(Compl. specn. 12 pages;

Drgs. 2 sheets)

Ind. Cl. : 206-E-[GROUP—LXII]

171716

Int. Cl. : H 03 B 19/05  
GJ 01 R 27/26

## A SYSTEM FOR PRODUCING A SIGNAL VALUE REPRESENTATIVE OF THE RATIO BETWEEN THE CAPACITANCE OF TWO CAPACITORS.

Applicant : MOORE PRODUCTS CO., OF SUMNEY-TOWN PIKE, PENNSYLVANIA 19477, U.S.A., AN AMERICAN COMPANY.

Inventor : CHIH CHEN CHIANG.

Application No. 538/Mas/88 filed on July 27, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

Ind. Class : 172-C, &amp; - [GROUP - XX].

171715

Int. Cl. : D 01 G 19/08.

## SYSTEM FOR AUTOMATICALLY CONVEYING COTTON LAPS FROM A RIBBON-LAP MACHINE TO A COMBING MACHINE ASSEMBLY.

Applicant : FRATELLI MARZOLI &amp; C.S. p.A., OF VIA DURANTE, 1, 25036. PALAZOLO SULL'OGGLIO (BRESCIA), ITALY.

Inventor : BIANCHI MARZOLI PIETRO.

Application No. 513/MAS/88 filed July 19, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 8 Claims

A system for automatically conveying cotton laps from a ribbon-lap machine to a combing machine assembly comprising downstream of said ribbon-lap machine, a cradle lifting device (2) for taking up a lap roller (4) from a lap roller collecting frame (3), a gripper take up device (10) adapted for taking up a lap roller (4) from said cradle lifting device (2) and to discharge an empty roller (4a) on an empty roller collecting frame (15), said gripper take up device (10) being supported on a carriage (20) for sliding on a guiding path to selectively reach a combing machine selected from said combing machine assembly to discharge the said lap roller (4) on a supplying frame while simultaneously taking up an empty roller (4a).

Ind. Cl. : 206-E-[GROUP—LXII]

171716

Int. Cl. : H 03 B 19/05  
GJ 01 R 27/26

## A SYSTEM FOR PRODUCING A SIGNAL VALUE REPRESENTATIVE OF THE RATIO BETWEEN THE CAPACITANCE OF TWO CAPACITORS.

Applicant : MOORE PRODUCTS CO., OF SUMNEY-TOWN PIKE, PENNSYLVANIA 19477, U.S.A., AN AMERICAN COMPANY.

Inventor : CHIH CHEN CHIANG.

Application No. 538/Mas/88 filed on July 27, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 4 Claims

A system for producing a signal value representative of the ratio between the capacitance  $C_1$  of a first capacitor and the capacitance  $C_2$  of a second capacitor comprising :

Oscillator means having a frequency-determining circuit and oscillating at a frequency which varies in a predetermined manner with the total value of capacitance actively connected in said circuit;

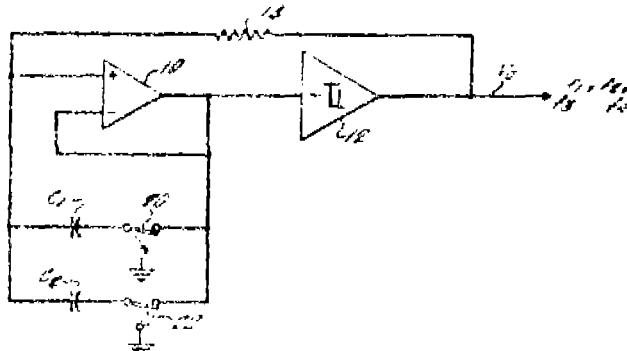
said frequency-determining circuit inherently having a fixed, continuously-present capacity  $C_1$  for determining the frequency of oscillations of said oscillator means in the absence of said capacitors  $C_1$  and  $C_2$ ;

said first and second capacitors having four possible combinations in which they are connected to said frequency-determining circuit, namely;

- (1) only said first capacitor actively connected in said circuit;
- (2) only said second capacitor actively connected in said circuit;
- (3) neither of said first and second capacitors actively connected in said circuit;
- (4) both said first and second capacitors actively connected in said circuit;

switching means connecting first and second capacitors with said frequency-determining circuit in said combination (1) at a first time, to produce oscillations at a first frequency  $f_1$  and for connecting said first and second capacitors with said circuit at another time in said combination (2), to produce oscillations at a second frequency  $f_2$  and connecting said first and second capacitors with said frequency-determining circuit at still another time in one of said combinations (3) and (4), to produce oscillations at one of two corresponding different frequencies  $f_3$  and  $f_4$ ; and

means responsive to said oscillations at frequencies  $f_1$ ,  $f_2$  and one of said frequencies  $f_3$  and  $f_4$  to produce signal values representative of the values of said ratio between  $C_1$  and  $C_2$ , substantially undistorted by the effects of said fixed capacitance  $C_p$ .



Compl. Specn. 24 pages.

Drgs. 3 sheets.

Ind. Class : 152-B [GROUP-XII(2)]

171717

Int. CL' : E 01 C 7/18.

#### A PREMIX COMPOSITION FOR ROAD WORK.

Applicant : IDL CHEMICALS LIMITED, OF SANATH-NAGAR (IE), P.O. HYDERABAD-500 018, ANDHRA PRADESH, INDIA, A COMPANY DULY ORGANISED AND EXISTING UNDER THE LAWS OF INDIA.

Inventor : DR. ERODE GANAPATHY MAHADEVAN.

Application No. 553/Mas/88 filed August 2, 1988.

Appropriate office or opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

#### 8 Claims (No drawing)

A premix composition for road work in particular for filling pot holes, completing patch work, comprising of :

(a) aggregates of broken rocks having various sizes as under :

19.0 mm to 25.0 mm	:	0 to 10%
12.5 mm to 19.0 mm	:	2 to 15%
4.75 mm to 12.5 mm	:	30 to 80%
2.36 mm to 4.75 mm	:	5 to 25%
1.18 mm to 2.36 mm	:	2 to 15%
Lesser than 1.18 mm	:	2 to 5%

with

(b) a bitumen emulsion consisting of :

Bitumen (Straight run or blown)

or tar or pitch used for road work : 50 to 72%

Solvent : 1.5 to 25%

Emulsifier : 0.05 to 5%

Density Controller : 0 to 1%

Stabiliser : 0.05 to 2%

Acidic Soln. : 0 to 45%

Hydro Colloid : 0 to 1%

the ratio of bitumen emulsion to aggregates being in the range of 3 to 20% by weight of aggregates.

(Compl. specn. 10 pages)

Ind. Class : 172-C<sub>9</sub> [GROUP-XX]

171718

Int. CL' : D 01 H 7/888.

#### AN OPEN END SPINNING ARRANGEMENT AND A METHOD OF SPINNING A YARN IN THE OPEN END SPINNING ARRANGEMENT.

Applicant : SCHUBERT & SALZER MASCHINENFABRIK AKTIENGESELLSCHAFT, OF FRIEDRICH-EBERT-STRASSE 84, D-8070 INGOLSTADT, GERMANY, A GERMAN COMPANY.

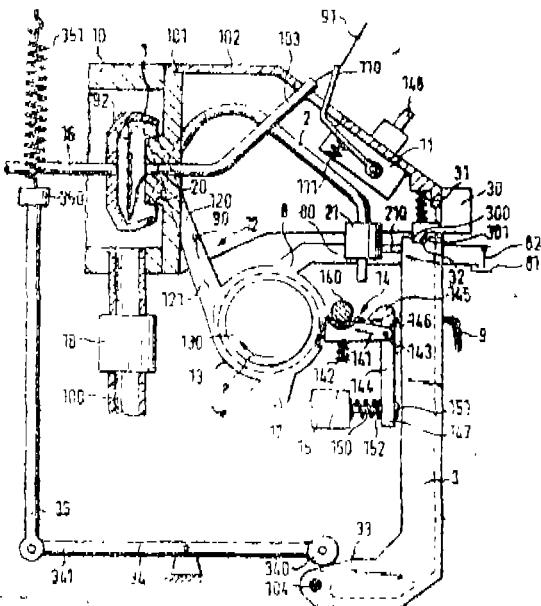
Inventors : (1) ERWIN BRAUN  
(2) EBERHARD GRIMM.

Application No. 569/Mas/88 filed August 9, 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

#### 25 Claims

An open end spinning arrangement having at least one open end spinning device with a spinning rotor and with a compressed air conduit which is directed towards the internal surface of the spinning rotor, for cleaning purposes, and communicates via a check valve (21) with compressed air, wherein a pressure-controlling arrangement (4) is arranged upstream of the compressed air conduit (2) for providing a higher (PLH) and a lower super-pressure (PLN) and a switching arrangement (7; 22, 23; 51; 51, 61; 45, 46) loads the compressed air conduit (2) alternately with the higher (PLH) and with lower super pressure (PLN).



(Compl. specn. 53 pages)

Drgs. 3 sheets

Ind. Class : 143-D<sub>4</sub> [GROUP XL(5)] 171719Int. Cl.<sup>4</sup> : B 29 D 7/00.

A PACKAGING FOIL MADE OF PLASTICS PAPER OR OTHER SHEET OR OTHER MATERIAL HAVING A FRICTION SURFACE.

Applicant : A. AHLSTROM CORPORATION, A FINNISH BODY CORPORATE OF ST-29600 NOORMARKKU, FINLAND.

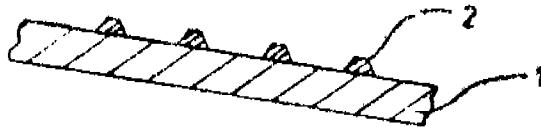
Inventor : MATTI KATILA.

Application No. 575/Mas/88 filed August 11, 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 4 Claims

A packaging foil (1) made of plastics, paper or other sheet or other material having a friction surface characterized in that a coating (2) of dot-like projections is formed from a thermoplastic hot melt on that part or those parts of the foil (1) equiring improved friction wherein the square weight of the coating is 2-15 g/m<sup>2</sup>.



(Compl. specn. 8 pages)

Drgs. 1 sheet)

Ind. Class : 1-A [GROUP XLII(1)] 171720

Int. Cl.<sup>4</sup> : C 09 J 3/14; C 08 L 25/00.

## A PRESSURE-SENSITIVE ADHESIVE COMPOSITION.

Applicant : MINNESOTA MINING AND MANUFACTURING COMPANY, A CORPORATION OF THE STATE OF DELAWARE, OF 3M CENTER, SAINT PAUL, MINNESOTA-55144-1000, UNITED STATES OF AMERICA.

Inventors : (1) JOHN A. MILLER

(2) EGBERT A. VON JAKUSCH.

Application No. 588/Mas/88 filed August 17, 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

## 7 Claims

A pressure-sensitive adhesive composition comprising 20 to 50 percent by weight of an elastomer which is an A-B-A block copolymer, wherein the A blocks are derived from styrene or aliphatic methylstyrene and the B blocks are derived from isoprene, butadiene, or hydrogenated versions thereof, or an (AB) block copolymer of the same type of composition, in another geometry such as a tapered block copolymer or a radial block copolymer, 20 to 60 per cent by weight of a solid tackifier resin, 10 to 40 per cent by weight of a liquid tackifier resin, and 2 to 20 per cent by weight of an end block reinforcing resin.

(Compl. specn. 30 pages)

Drgs. 5 sheets)

Ind. Class : 168-C &amp; 187-C, [GROUPS LI(4) &amp; LXI(2)] 171721

Int. Cl.<sup>4</sup> : H 03 K 17/00; H 03 J 3/00

## TELECOMMUNICATIONS DIGITAL SWITCH.

Applicant : GEC PLESSEY TELECOMMUNICATIONS LIMITED, OF NEW CENTURY PARK, PO BOX 53, COVENTRY, CV3 1HJ, ENGLAND, A BRITISH COMPANY.

Inventors : (1) THOMAS SLADE MADDERN  
(2) GEOFFREY CHOPPING.

Application No. 616/Mas/88 filed September 2, 1988.

Convention date : November 13, 1987; No. 8726677; United Kingdom).

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Madras.

## 7 Claims

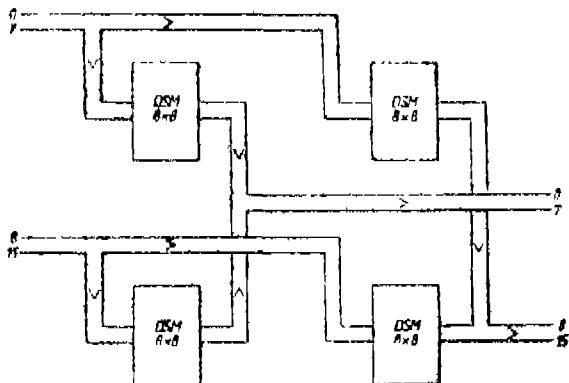
A telecommunications digital switch for switching channels of time division multiplexed (TDM) signals on a multiplicity of switch input and output paths comprising plurality of :

input and output switching stages and a central switching area;

the said input and output switching stages each having arrays of DSM as herein defined;

the said central switching area having first and second arrays of DMR as herein defined, wherein the DMR are preprogrammed with a channel allocation address pattern that all channel routes through the central switching stage experience the same time delay;

the arrangement being such that all or a major part of the channel routes through the switch are constrained to have delays such that all channels are displaced to positions within (n) or (n+1) subsequent time frames of the TDM system, where (n) is an integer, selected from the range 0, 1 and 2.



(Compl. specn. 23 pages)

Drgs. 10 sheets)

Ind. Class : 172-B [GROUP XX] 171722

Int. Cl.<sup>4</sup> : D 01 H 5/42.

## A FIBRE-PROCESSING INSTALLATION.

Applicant : MASCHINENFABRIK RIETER AG, A SWISS COMPANY, OF CH-8406, WINTERTHUR, SWITZERLAND.

Inventors : (1) WALTER SCHLEPPER, (2) CHRIS TOPH STAEBELI.

Application No. 630/Mas/88 filed on September 7, 1988.

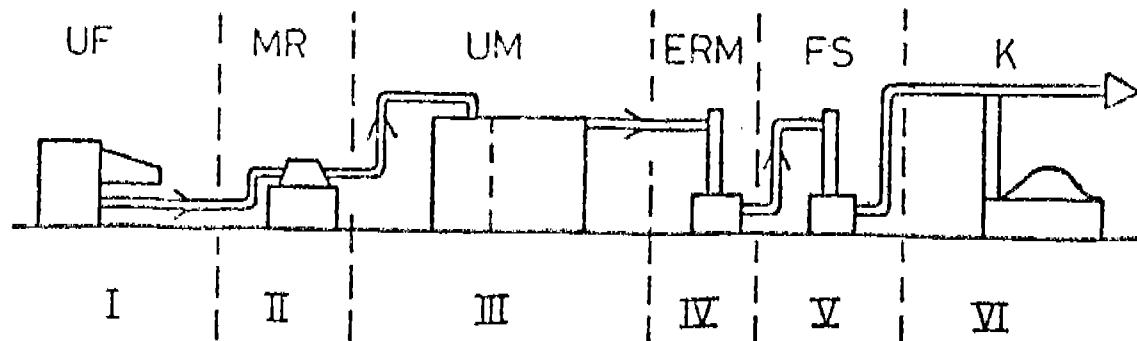
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Madras.

## 6 Claims

A fibre-processing installation comprising at least one fibre supply stage (X; UF; UM; ERM, FS), running discontinuously in stop/go operation and with at least one fibre-processing stage (Z, K) connected to the fibre supply

stage with an automatic feed means in order to feed the fibres to be processed in a predetermined sequence, characterized in that a control means for monitoring the actual operative/inoperative time ratio in comparison with a nominal value for the operative/inoperative time ratio of the said discontinuously operating stage (UF, FS) and a signal producing means (LR) for producing a signal (28,

24, 20, 16) representing the total production of the processing stage (K) downstream of the said fibres feed stage (UF, FS) or fibre feed stages (UF, UM, ERM, FS) and the said control means reacting to this signal for changing the nominal value of the operative/inoperative time ratio of the said discontinuously running stage (UF, FS) depending on the total production of this stage.



(Compl. specn. 22 pages)

Drgs. 3 sheets)

Ind. Class : 85A [GROUP XXXT]

171723

Int. CL<sup>4</sup> : F 23 C 11-02.**APPARATUS FOR BURNING SOLID FUEL.**

Applicant : FIVES-CAIL BOBCOCK, A FRENCH COMPANY, OF 38, RUE DE LA REPUBLIQUE 93100 MONTRÉUIL, FRANCE.

Inventors : (1) MONSIEUR JEAN-LOUIS BOUJO  
 (2) MONSIEUR PAUL COSAR  
 (3) MONSIEUR PASCAL GEROGES.

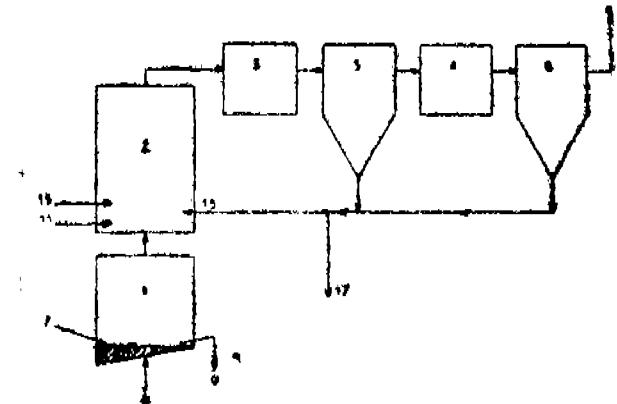
Application No. 644/Mas/88 filed September 13, 1988.

Appropriate office or opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Madras.

**5 Claims**

Apparatus for burning solid fuel comprising a furnace having a two-staged combustion chamber the lower part of which forming a fluidized bed reactor with a gas-pervious sloping hearth floor having a lower upstream fuel receiving end and an upper downstream ashes or clinker discharging end and with stoichiometric primary air flow feed duct means arranged underneath the floor, the upper part of which forming an upper circulating fluidized bed reactor with secondary air flow inlet nozzle means located a certain height above the lower fluidized bed with sulphur absorber injection means located above the secondary air flow inlet nozzle means; and at least one dust collector arranged at the outlet of said chamber, a solid particle reinjection duct means connecting the outlet of each of the dust collector to the upper part of the combustion chamber at the level of or above the secondary air flow inlet means; blow-off duct means branched off from the reinjection duct means for withdrawing one part of the separated solid particles consisting of fly ashes and of the products of the desulphurization reaction so as to provide at the second combustion stage only a single closed-loop circuit of a

mixture of fine fuel particles and fly ashes; and recycled dust flow rate control means.



(Compl. specn. 12 pages)

Drgs. 1 sheet)

Ind. Cl. : 107 K [XLVI(2)]

171724

Int. Cl<sup>4</sup> : B 61 F 15/22 & F 16 K 41/00.**A UNITARY VALVE SEAL ASSEMBLY.**

Applicant DANA CORPORATION, OF 4500 DORR STREET, TOLEDO, OHIO 43615 U.S.A., A CORPORATION OF THE STATE OF VIRGINIA, U.S.A.

Inventor EDWARD E LAFEVER.

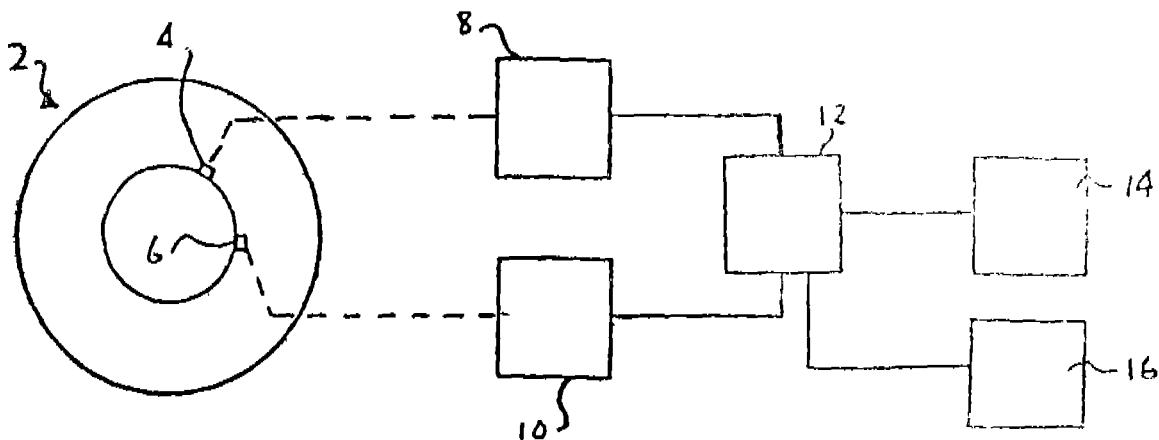
Application No. 665/Mas/88 filed on 22nd September, 1988.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, Madras.

**11 Claims**

A unitary valve seal assembly for sealing a valve stem in an internal combustion engine comprising, a cylindrical





Compl. Specn. 13 pages.

Drgs. 1 sheet.

Ind. Cl. : 70-C.—[GROUP—LVIII (5)]

171728

Int. Cl.<sup>4</sup> : C 25 D 3/48; 5/44

#### A PROCESS OF GOLD PLATING ON ALUMINIUM ALLOYS

Applicant: INDIAN SPACE RESEARCH ORGANISATION, (I.S.R.O.), CAUVERY BHAVAN, KEMPEGOWDA ROAD, BANGALORE — 560 009, INDIA, AN INDIAN ORGANISATION.

Inventor: Dr ANAND KUMAR SHARMA

Application No. 715/Mas/88 filed on October 11, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

(v) electroless nickel plating for 30-100 minutes in a solution containing 25 to 35 g/l of nickel sulphate, 8 to 12 g/l of sodium hypophosphite, 10 to 15 g/l of sodium citrate, 4 to 6 g/l sodium acetate and 0.5 to 1 mg/l thiourea, the said bath having a pH 4 to 6 at 85-100°C, heating the plate object at a temperature of 150-200°C in inert atmosphere for 1-2 hours and activating in 50% hydrochloric acid for 30 seconds followed by rinsing in water

(vi) gold striking in a bath containing, gold potassium cyanide 2-5 g/l, citric acid 45-65 g/l, sodium citrate 45-65 g/l, operating at pH 3-5, temperature 50-65°C, current density 1-2 Amp/ft<sup>2</sup> for 2-5 minutes

(vii) Gold plating in a bath containing, 8 to 14 g/l of gold potassium cyanide, 45 to 65 g/l citric acid, 45 to 65 g/l sodium citrate at pH 3 to 5, temperature of 60 to 75°C and current density 2-4 Amp/ft<sup>2</sup> for 5 to 60 minutes.

Compl. Specn. 11 pages.

#### 2 Claims (No drawing)

A process of gold plating on aluminium alloys comprising the steps :

- (i) solvent cleaning in trichloroethylene
- (ii) alkaline cleaning in a bath containing 20 to 30 g/l of trisodium phosphate, and 15 to 25 g/l sodium carbonate at a temperature 50 to 70°C for 2 to 5 minutes
- (iii) acid cleaning in a bath containing 7 to 12 ml/l of sulphuric acid, 10 to 15 ml/l of 40% hydrofluoric acid, 20 to 30 ml/l of 70% nitric acid, at room temperature for 2 to 3 minutes
- (iv) zincating in alloy zincating solution having the composition 25 to 35 g/l of nickel sulphate, 35 to 45 g/l of zinc sulphate, 100 to 115 g/l of sodium hydroxide, 8 to 12 g/l of potassium cyanide, 35 to 45 g/l potassium bitartrate, 4 to 6 g/l copper sulphate and 1 to 3 g/l ferric chloride at room temperature for 1 minute, stripping of the so formed zincate layer by dipping in 50% nitric acid for 30-45 seconds and then re-zincating the job in similar alloy zincating solution for 30 to 45 seconds

Ind. Cl. : 14-B & D<sub>1</sub>—[GROUP—LVII (1)]

171729

Int. Cl.<sup>4</sup> : H 01 M 2/02

#### AN INSULATION SLEEVE FOR A ROUND GALVANIC PRIMARY CELL AND A PROCESS FOR PRODUCING THE SAME

Applicant: VARTA BATTERIE AKTIENGESELLSCHAFT OF AN LEINEUFER 51, 3000 HANNOVER 21, FEDERAL REPUBLIC OF GERMANY, A GERMAN COMPANY.

Inventors: (1) KLAUS RUGGEBERG, (2) HORST-UDO JOSE.

Application No. 799/Mas/88 filed on November 16, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

#### 22 Claims

An insulation sleeve for a round galvanic primary cell comprising a coiled paper strip with an absorbent underside forming an inner tubular surface of the coiled strip for absorbing electrolyte and a plastic coated upper side forming an outer tubular surface of the coiled strip for sealing in the electrolyte and for shielding the absorbing layer, said strip having a first lengthwise edge folded over toward the underside such that the folded over edge overlaps and is adhesively



If full written statement of opposition is not filed with the notice of opposition it should be left within one month from the date of filing the said notice of opposition.

Notice is hereby given that INDUSTRIAL PROGRESS INC., a corporation of the State of New Jersey, United States of America, of 614, Highway No. 130, P.O. Box 968, East Windsor, New Jersey 08520, United States of America, have made application under section 57 of the Patents Act, 1970 for amendment of address for service in India, in respect of Patent Application No. 184/Bom/1990 (171537) for "A process for making structural aggregate pigments". The application for amendment's and proposed amendment can be inspected free of charge at The Patent Office Branch, Todi Estate, 3rd Fl., Sun Mill Compound, Lower Parel (West), Bombay-400 013, on any working day during the usual official hours or copies of the same can be had on payment of usual copying charges. Any person interested in opposing the application for amendment may file a Notice of Opposition on the prescribed Form-30 alongwith full written statement within three months from the date of this notification to the Patent Office Branch, Bombay.

If full written statement of opposition is not filed with the notice of opposition it should be left within one month from the date of filing the said notice of opposition.

**ENDORSEMENT OF PATENTS WITH THE WORDS  
LICENCE OF RIGHT UNDER SECTION 87 OF THE  
PATENTS ACT, 1970**

Patent No.	Date
160895	08-01-1992
160896	
160912	
160924	
160941	
160950	
160958	
160959	
160986	
160990	
161000	
161154	
161166	
161763	15-01-1992
161918	
162064	
161900	
162157	
162193	
162246	
162085	
161914	
162160	15-01-1992
162212	
162268	
161976	
162117	
162186	
162187	
162189	
162210	
162230	
161974	
162083	
162106	
162126	
162147	
161824	
162067	
162070	
162120	

Patent No.	Date
162171	
162185	
162199	
162213	

**RENEWAL FEES PAID**

148556	151158	151655	152011	152135	152420	153521	153563
153730	153948	153982	154002	154126	154179	154182	154284
154285	154287	154291	154308	154332	154374	154376	154379
154383	154384	154386	154449	154501	154609	155404	155468
155472	155575	155598	155846	155930	155966	156030	156032
156127	156219	156675	157158	157320	157613	157614	157946
157947	157957	157970	157996	158087	158118	158132	158244
158330	158334	158352	158421	158490	158573	158859	158934
158937	158938	158939	158969	158972	159025	159116	159398
159462	159478	159563	159746	159827	159836	159895	159962
160142	160209	160210	160322	160351	160410	160443	160461
160689	160760	160906	160977	161053	161119	161153	161155
161208	161209	161274	161547	161676	161782	161801	161879
161972	162143	162402	162670	162680	162790	162959	163067
163109	163215	163264	163440	163449	163678	163679	163712
163812	163911	164006	164276	164458	164472	164561	165154
165416	165464	165721	165827	165831	165881	165974	166106
166186	166225	166229	166287	166330	166417	166430	166458
166461	166465	166477	166534	166585	166620	166654	166658
166660	166662	166701	166702	166722	166732	166757	167025
167036	167114	167306	167665	167729	167739	167833	167835
167837	167838	167851	167852	167854	167855	167856	167858
167868	167869	167891	167892	168165	168221	168294	168300
168301	168341	168343	168346	168377	168399	168411	168420
168530	168537	168539	168866	168994	168998	169012	169537

**CESSATION OF PATENTS**

159329	159331	159332	159334	159338	159348	159349	159350
159355	159359	159360	159363	159369	159371	159372	159381
159384	159390	159391	159397	159400	159402	159403	159404
159409	159417	159420	159425	159433	159438	159440	159441
159445	159447	159448	159449	159451	159452	159457	159458
159464	159467	159470	159471	159477	159490	159493	159494
159497	159490	159503	159504	159505	159508	159509	159513
159518	159519	159524	159526	159529	159530	159532	159533
159537	159541	159544	159546	159547	159548	159550	159552

**RESTORATION PROCEEDINGS**

Notice is hereby given that an application was made under Section 60 of the Patents Act, 1970 for the restoration of Patent No. 165588 granted to Daizaburo Nakamoto for an invention relating to "blended jute yarns their method of manufacture and apparatus used for the same."

The Patent ceased on the 23rd October 91 due to non-payment of renewal fees within the prescribed time and the cessation of the patent will be notified in the Gazette of India, Part III, Section 2, dated 12th December 1992.

Any interested person may give notice of opposition to the restoration by leaving a notice on Form 32 in duplicate, with the Controller of Patents, The Patent Office, Nizam Palace, 2nd M.S.O. Building, 5th 6th and 7th floor, 234/4, Acharya Jagdish Chandra Bose Road, Calcutta-700 020 on or before the 19th February 93, under Rule 69 of the Patents Rules 1972. A written statement, in triplicate, setting out the nature of the opponents interest, the facts upon which he bases his case and the relief he seeks, shall be filed with the notice or within one month from the date of the notice.

Notice is hereby given that an application was made under Section 60 of the Patents Act, 1970 for the restoration of Patents No. 161167 granted to Kidar Nath Babbar for an invention relating to "a motive means for an air conditioning system for buses and like vehicles."

The Patent ceased on the 6th December 91 due to non-payment of renewal fees within the prescribed time and the cessation of the patent will be notified in the Gazette of India, Part III, Section 2, dated 12th December 1992.

Any interested person may give notice of opposition to the restoration by leaving a notice on Form 32 in duplicate, with the Controller of Patents, The Patent Office, Nizam Palace, 2nd M.S.O. Building, 5th 6th and 7th floor, 234/4, Acharya Jagdish Chandra Bose Road, Calcutta-700 020 on or before the 19th February 93, under Rule 69 of the Patents Rules 1972. A written statement, in triplicate, setting out the nature of the opponents interest, the facts upon which he bases his case and the relief he seeks, shall be filed with the notice or within one month from the date of the notice.

#### RESTORATION PROCEEDINGS

Notice is hereby given that an application for restoration of Patent No. 162560 dated the 14th October 1985 made by Brojendra Narayan Mazumder on the 27th May 1992 and notified in the Gazette of India Part III, Section 2, dated the 1st August 1992 has been allowed and the said patent restored.

#### REGISTRATION OF DESIGNS

The following designs have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in Section 50 of the Designs Act, 1911.

The date shown in the each entries is the date of the registration of the design included in the entry :

Class 1. No. 164162. Harishbhai Suryakant Kothari, Indian of "Chandrashila", Mohan Amin Marg, Rajkot-360 001, Gujarat, India. "Spider for Razor". March 17, 1992.

Class 1. No. 164166. Harishbhai Suryakant Kothari, Indian, "Chandrashila", Mohan Amin Marg, Rajkot-360 001, Gujarat, India. "Spider for Razor". March 19, 1992.

Class 3. No. 164137. L. V. Sham Cottage Industries, 2292/2, Inside Gate Hakiman, Amritsar-143 001, Punjab, India, "Torch". March 4, 1992.

Class 3. No. 164257 Mrs. Pratima Joshi, Indian, C-1/102, Ashok Vihar, Phase-II, Delhi-110 052. India. "Torch". April 20, 1992.

Class 3. No. 164407. Videocon International Ltd., Indian Company of Auto Cars Compound, Adalat Road, Aurangabad-431 005, Maharashtra, India. "Air Coller". May 25, 1992.

Class 3. 164420. Lakme Limited at Bombay House 24, Homi Mody Street, Bombay-400 001, Maharashtra, India. "Bottle without cap". May 29, 1992.

Class 3. 164421. Lakme Limited at Bombay House, 24, Homi Mody Street, Bombay-400 001, Maharashtra, India. "Bottle". May 29, 1992.

Class 3. 164422. Lakme Limited at Bombay House, 24, Homi Mody Street, Bombay-400 001, Maharashtra, India. "Bottle with sprayer". May 29, 1992.

Class 3. No. 164623. Bhaion-ki-Dukan, 899-Chowk Qutab Road, Delhi-110 006, India, Indian Partnership Firm. "Container". July 27, 1992.

Class 5. No. 164419. Lakme Limited, Bombay House, 24 Homi Mody Street, Bombay-400 001, Maharashtra, India. "Carton". May 29, 1992.

Class 12. No. 164429. Choudhury Plastic Works, 4232, Gali Barna, Sadar Bazar, Delhi-110 006, India, Indian Proprietary Concern. "Film Viewer". June 2, 1992.

*Copyright extended for the 2nd period of five years*

No. 158701 Class 1.

Nos. 163860 to 163872, 164011, 163062. Class 3.  
163890, 158731 & 158700

No. 163061 Class 12

*Copyright extended for the 3rd period of five years.*

Nos. 163860 to 163872, 152147, 164011, Class 3.  
163062 and 163870

No. 152450 Class 4.

R. A. ACHARYA  
Controller General of Patents Designs  
and Trade Marks